

Title: Circumferences and areas of plane figures

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Abstract: This diploma thesis Circumferences and areas of plane figures is designed for teachers and high school students. Teachers might find some interesting tasks including various metric problems from the field of synthetic geometry as well as inference of mathematic equations for calculation circumferences and areas of plane figures which are taught at elementary schools and high schools. Pupils can appreciate solved tasks and their knowledge can be applied to other similar tasks. The ninth chapter includes more difficult tasks. There are many drawings exported from GeoGebra which can help students to understand the task better.

Keywords: circumference, area, length, teaching of mathematics